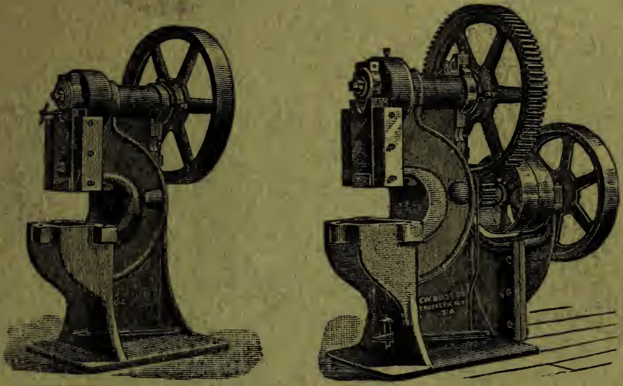
"Stiles" Power Punching Presses and Sprue Cutters



BUILT BY

E. W. BLISS CO.

COMPRISING ALSO

THE STILES AND PARKER PRESS CO.

NEW YORK (Borough of Brooklyn), N. Y., U. S. A.

No. 2-A.

Having recently purchased the business of

THE ORR & HESS MACHINE CO.
of PHILADELPHIA, PA.

We are prepared to furnish the most IMPROVED COINING MACHINERY used in making Coins, Medals and similar work.

PROJECTILE DEPARTMENT

Having purchased the plant of The United States Projectile Co., we are now prepared to furnish Seamless Steel Forgings, such as Bowls, Bottles, Cream Separator Bowls, Special Shapes, Etc., also Steel Pinions and Cast Steel Cut Gears for all Electric Systems.

FOUNDRY DEPARTMENT

With our greatly increased foundry facilities, we are now in a position to furnish Superior Quality Iron Castings, both Light and Heavy, and we solicit orders for this kind of work.

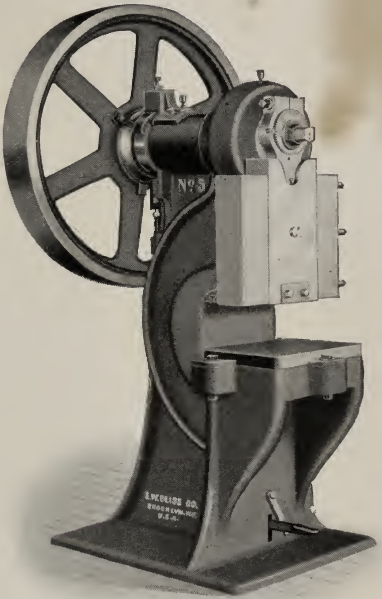
FORGE DEPARTMENT

Our new forge shop has been completed and we are now ready to supply Iron and Steel Forgings for Dies and other purposes.

E. W. BLISS CO.

5 M-5-14-03. W. E. C.

"STILES" POWER PUNCHING PRESSES



BUILT BY

E. W. BLISS CO.

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THE STILES AND PARKER PRESS CO.

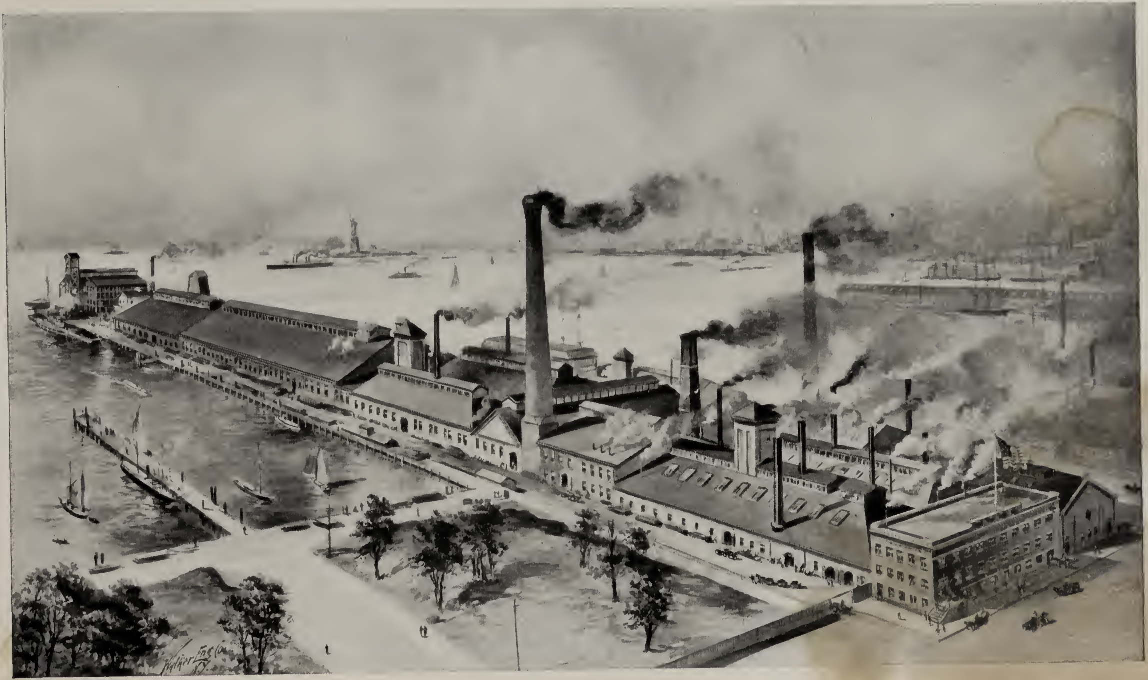
OFFICE, ... Adams and Plymouth Sts.
MACHINE SHOPS, Adams, John, Pearl and Plymouth Sts.
PROJECTILE DEPARTMENT, First Ave. and Fifty-third St.
FOUNDRY DEPARTMENT, Water, Jay and Plymouth Sts.
FORGE SHOPS, . . . Jay, Front and Pearl Sts.

NEW YORK (Borough of Brooklyn), - N. Y., U. S. A.

E. W. BLISS CO. PRESSES AND DIES

ONE OF THE MACHINE SHOPS OF E. W. BLISS CO.

VIEW IN ONE OF THE ERECTING SHOPS OF E. W. BLISS CO.



WORKS AND DOCK OF E. W. BLISS CO.'S PROJECTILE DEPARTMENT

Buildings 1,200 feet long

"STILES' POWER PUNCHING PRESSES,

Nos. 0, 1, 2, 2½, 3, 3½, 4, 4½, 5 and 5½.

For Dimensions, see pages 6 and 18.

There is hardly another style of power press that has met with such general favor among manufacturers of articles requiring **heavy punching**, as the line of "Stiles" Power Punching Presses which we designate by the numbers of **0** to **5½**. The range of work for which they are adapted covers nearly every kind of blank cutting, punching, perforating, forming and bending, including a large proportion of the operations needed in the manufacture of hardware, bicycles, locks, cutlery, guns, sewing machines, typewriters, and many other articles made out of sheet metal. All the best manufacturing establishments in this line in America and in Europe employ them.

The Design of the Frame is such as to combine the greatest strength and rigidity with convenience for handling dies and material.

The Pitman is made of steel, and rests with its lower end on a solid seat worked in the slide.

The Crank Pin runs in a **Bronze Bushing**, which can be readily renewed at small expense.

The "Stiles" Eccentric Adjustment is a specially valuable feature. It not only permits of rapid and very accurate adjustment, but transmits the pressure entirely through solid metal, instead of throwing it upon screw threads —a decided advantage for heavy work. It will be understood that by this device the stroke is not changed, but the punch is raised and lowered to suit different thicknesses of dies.

The Patent Graduated Adjustment, marked to 1-100 of an inch on the eccentric disk, enables the operator to keep an exact record of the dies and set them without loss of time. By setting between the lines differences much finer than 1-100 inch can be observed.

This graduated adjustment we now put on all the "Stiles" punching presses **without extra charge.**

The Stiles Automatic Clutch (with 1 clutch pin, Code Word, **Precocious**; with 3 clutch pins: **Precognita**) is simple, strong and reliable. It allows the shaft to be turned, for setting dies, while the wheel is in motion, without endangering the operator, it being impossible to start the press by any accidental pressure upon the treadle while the slide is down. No screws to set up, no pins to adjust, no accidents through neglect, the lock being self-acting. The wheel can also be turned backward to release a punch when "stuck" in the die, or in fitting punches to the die. The value of this feature is well known to those familiar with presses of this kind.

A "T" Slot is cast in the throat of the frame, to which strippers, ~ages and other fixtures can easily be fastened in different positions.

The Shafts are of forged steel, amply large to stand the heaviest strains without springing.

The Flywheels are of large diameters, have wide faces in order to give a good belt-pull in addition to the power resulting from their momentum, and are **bronze bushed.**

The Slides are well gibbed and carefully scraped to an accurate fit. The most delicate dies can be worked in the press. Watch manufacturers, whose dies are the most delicate employed in any trade, use the "Stiles" press extensively.

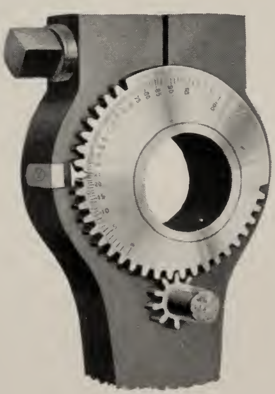
A Treadle-lock, operated by foot, enables the operator to quickly fasten the treadle down, for continuous running, or up, to guard against starting the press by accident.

The Positive Stop (Code Word, **Ragabash**) is a device to prevent a second stroke, even if the foot has not been removed from the treadle. It can easily be detached to give the regular clutch action when desired.

The Adjustable Stroke (Code Word, **Preachers**) makes it possible to change the movement of the slide from ¼ to 1 inch, according to the size of the press to which it is applied.

The two last-named devices are principally used by watch and clock makers, and are put on only when specially ordered, at an extra charge.

For List of Parts, see page 24.



The "Stiles" Patent Graduated Adjustment.

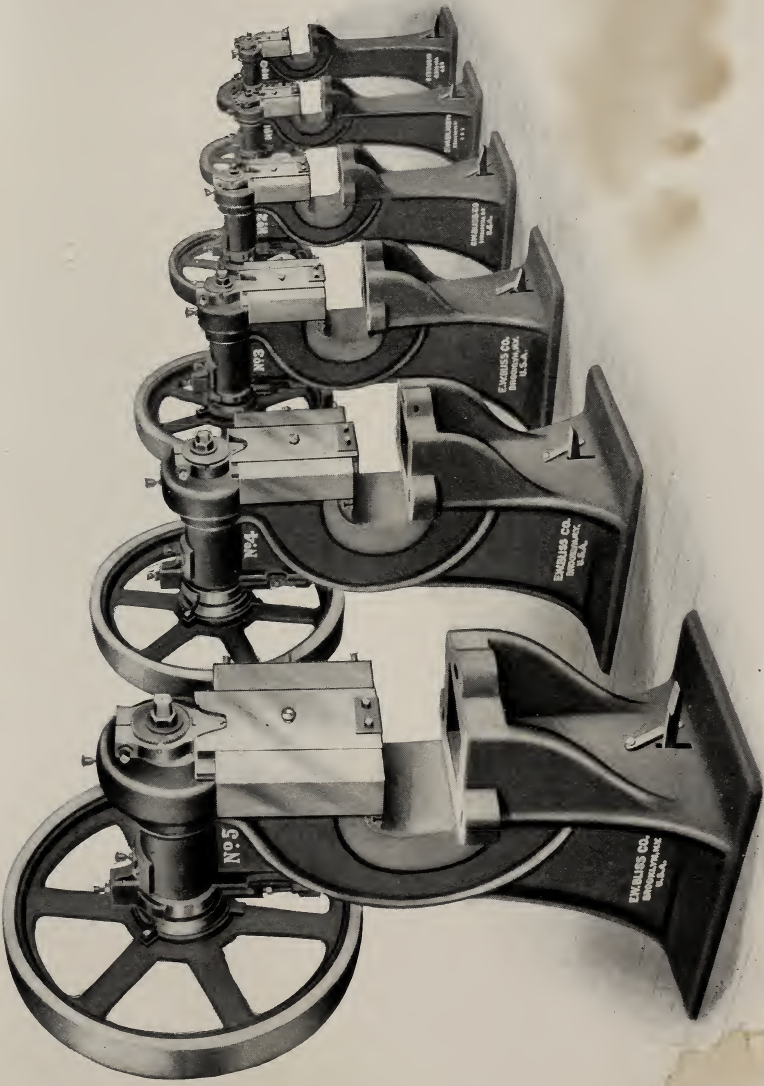
Code Word, **Precedent.**

“STILES” POWER PUNCHING PRESSES.

of Press	0	1	2	2½	3	3½	4	4½	5	5½
dard opening in bed ins	3 x 5	4 x 6	5 x 8	6 x 9	7 x 10	10 x 10	9 x 12	14 x 20	11 x 14	8 x 8
istance back from center of slide ins.	4	4½	6	7	7½	9	9	12	10½	25½
Distance from bed to slide, when up ins.	6	6	7	8	8	8	9	9	10	11¼
Standard stroke of slide ins.	1	1	1¼	1½	1½	1½	1½	1½	1½	1½
Adjustment of slide ins	1	1	1	1	1	1	1	1	1	1
Recess in slide for punch stem { Size (round or sq.) ins.	13/16	1 1/16	1 5/16	1 5/16	1 9/16	1 9/16	1 9/16	1 9/16	1 9/16	1 9/16
Recess in slide for punch stem { Length ins	2	2	2¾	2¾	3	3	3	3	3	3
Shaft diameter ins	2⅜	2⅞	3½	4	4⅜	4⅜	5	5	5⅝	5⅝
Distance between gibs ins.	3½	4¼	6¼	6¼	7⅞	7⅞	9	9	10⅝	10⅝
PRESSES, NOT GEARED:										
Price, as shown on pages 7, 8 and 10	$	$	$	$	$	$	$	$	$	$
Weight, " " " " lbs	550	900	1,600	2,500	3,000	3,300	5,000	5,600	7,300	11,000
Size of flywheel ins	18 x 2½	24 x 3⅛	30 x 4¼	34 x 4½	38 x 5¼	38 x 5¼	42 x 6¼	42 x 6¼	50 x 7¼	50 x 7¼
Weight " lbs	115	225	350	500	725	725	900	900	1,300	1,300
Speed " per minute revs	100 to 150	100 to 150	100 to 135	100 to 120	80 to 110	80 to 110	75 to 95	75 to 95	75 to 85	75 to 85
Floor space over all, F. & B. x R. & L. ins	26 x 22	26 x 24	34 x 30	40 x 34	43 x 38	47 x 38	50 x 42	56 x 42	58 x 50	75 x 50
Code Words	**Rinsed**	**Riot**	**Rioting**	**Ripascer**	**Ripely**	**Ripplings**	**Riptowel**	**Ritualism**	**Rivals**	**Roamed**
GEARED PRESSES:										
Price, as shown in cuts on pages 9 and 12.	—	$	$	—	$	—	$	—	$	$
Weight, " " " " lbs	—	1,100	2,000	—	3,500	—	6,600	—	9,000	12,000
Size of flywheel ins	—	18 x 2½	24 x 3⅛	—	30 x 4¼	—	38 x 5¼	—	42 x 6¼	42 x 6¼
Weight " lbs.	—	115	225	—	350	—	725	—	900	900
Speed " per minute revs	—	160	140	—	150	—	150	—	175	175
Proportion of gearing	—	1:4	1:4	—	1:5	—	1:6	—	1:7	1:7
Size of T. & L. pulleys ins	—	12 x 2½	16 x 3	—	20 x 4	—	22 x 5	—	24 x 6	24 x 6
Floor space over all, F. & B. x R & L. ins	—	30 x 24	40 x 30	—	48 x 38	—	78 x 43	—	86 x 52	112 x 53
Code Words	—	**Riostraba**	**Ripatisco**	—	**Rippled**	—	**Risibility**	—	**Rixations**	**Roaring**
Extra for plain bolster plate	$	$	$	$	$	$	$	$	$	$
Extra for ad. stroke (Code, **Preachers**)										
Extra for positive stop (Code Word, **Ragabash**)										
Extra for three clutch pins in wheel (Code Word, **Precognita**)										
Extra for stay rods (Code Word, **Polarente**)										

The strokes and most of the dimensions can be changed to suit special requirements at special prices, given on application.

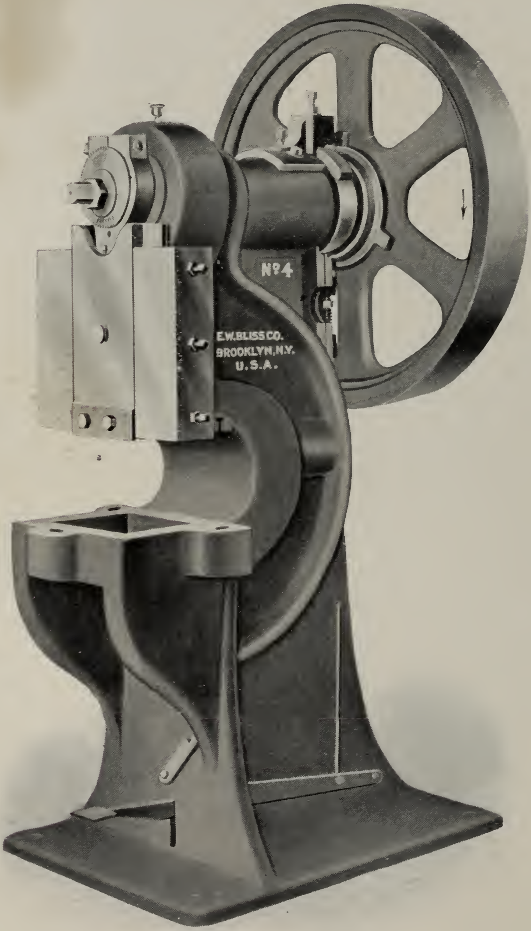
The **Nos. 3, 4, 5 and 5½ Geared Presses** have "outboard" bearings for the back shaft (see pages 9, 11 and 12). In the smaller sizes the pinion and flywheel run on a heavy stud fastened in the back of frame. **For list of press parts,** see page 24.



THE "STILES" POWER PUNCHING PRESSES, Nos. 0, 1, 2, 3, 4 and 5.

"STILES" POWER PUNCHING PRESS, No. 4.

Code Word, **RIPTOWEL.**

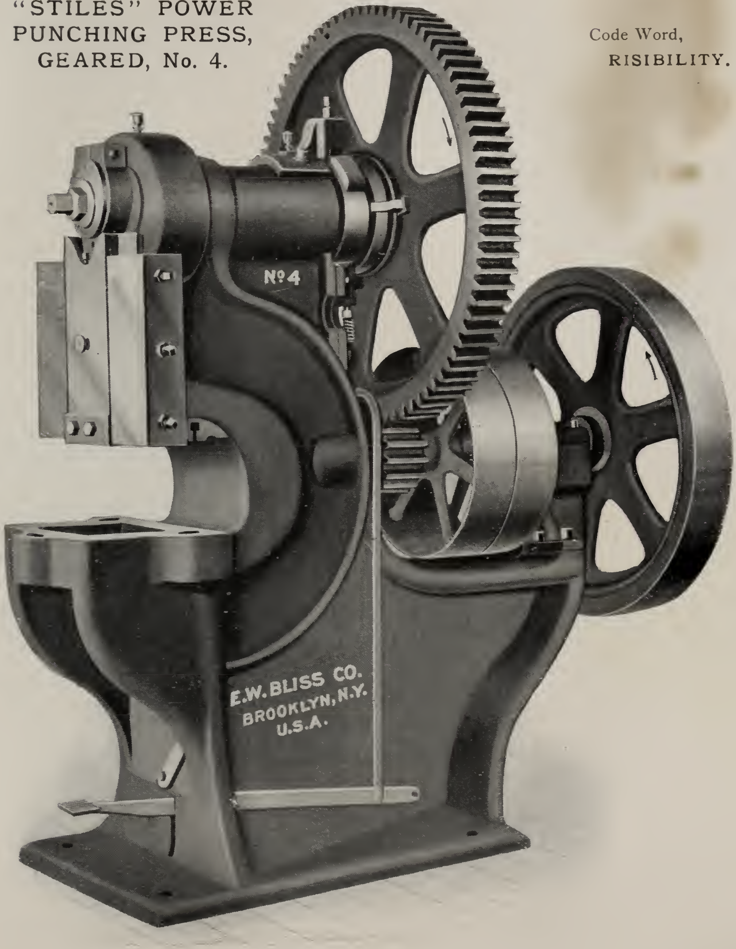


For description, see pages 4 and 5.

For dimensions, see page 6.

"STILES" POWER PUNCHING PRESS, GEARED, No. 4.

Code Word,
RISIBILITY.

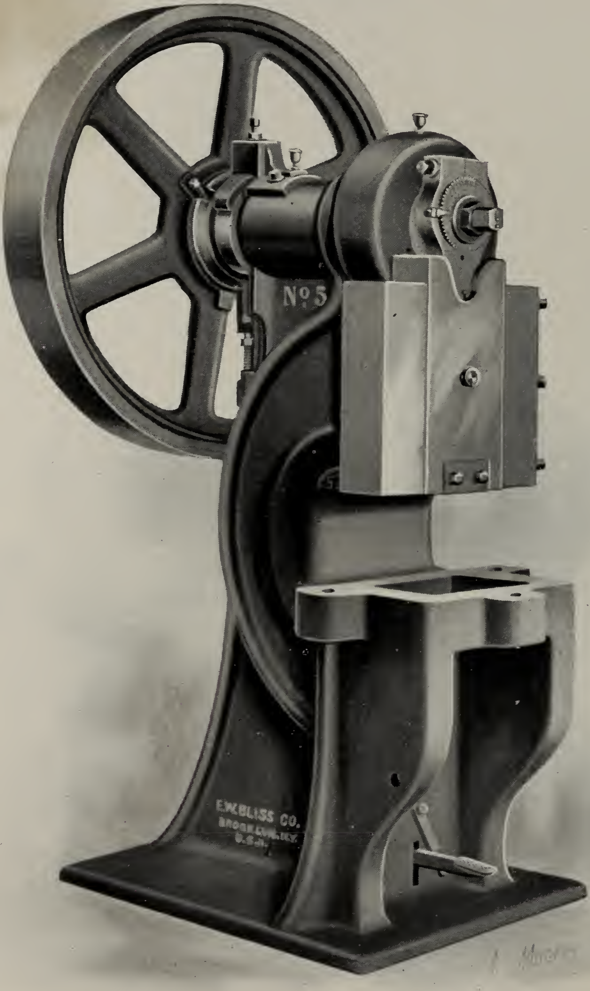


This cut shows the general style and appearance of the "Stiles" Geared Power Punching Presses, Nos. 1, 2, 3, 4 and 5. For dimensions, see page 6. For description, see pages 4 and 5.

Stiles No. 3 Press, with Double Gearing (Photos 394 and 1417), for broaching, has fly-wheel 26x3¾ inches, 250 pounds. Pulley, 16x4 inches. Ratio of gearing, 36½ to 1. Belt rim on gear to run as fly-wheel press. Stroke, 3 inches. Distance bed to slide when up, 12 inches. Weight, 3,800 pounds. Code Word, **Ripplefire.** Price, $........

"STILES" POWER PUNCHING PRESS, No. 5.

Code Word, **RIVALS.**



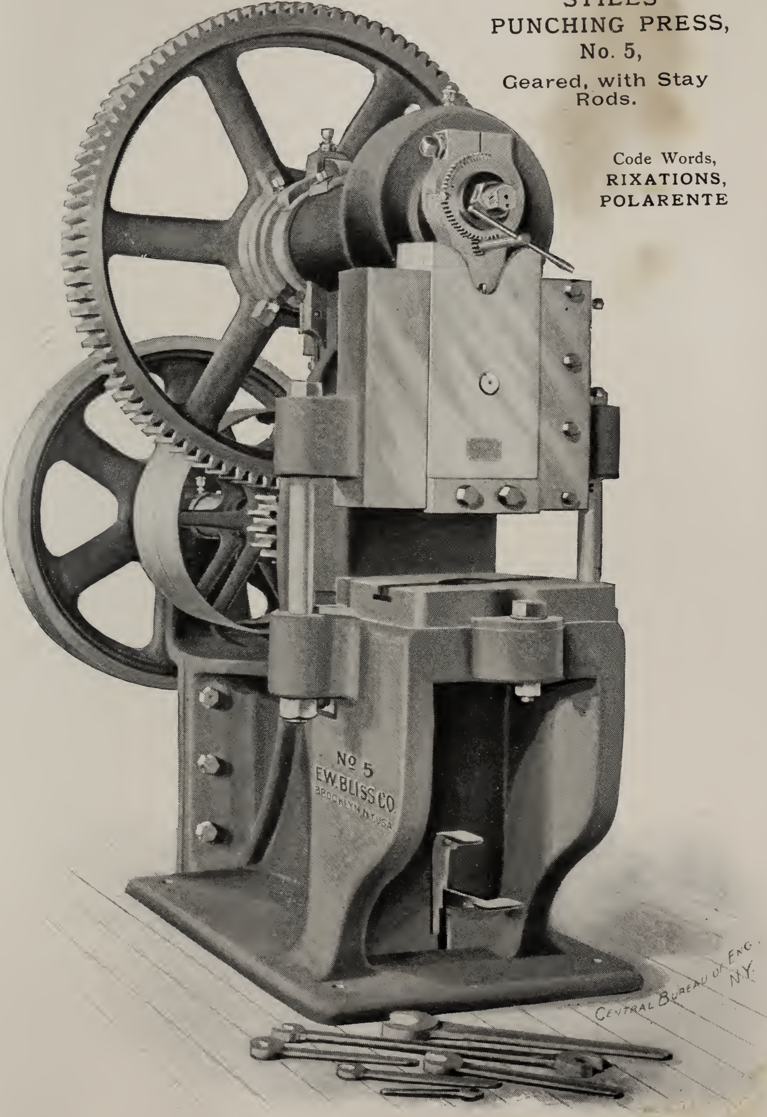
For description, see pages 4 and 5. For dimensions, see page 6.

"STILES" PUNCHING PRESS,

No. 5,

Geared, with Stay Rods.

Code Words,
RIXATIONS,
POLARENTE

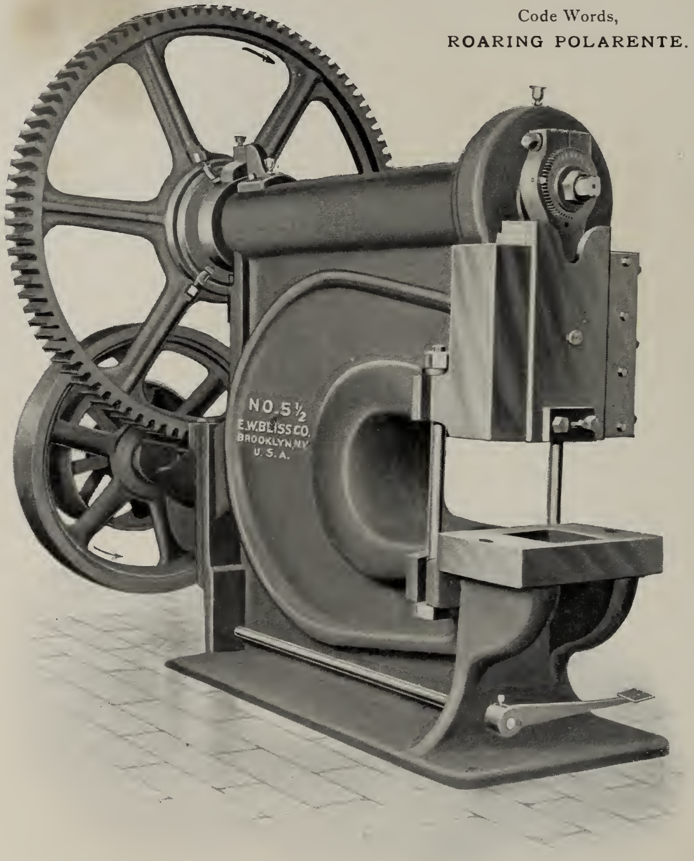


This press is regularly supplied without stay rods or bolster. For description, see pages 4 and 5. For dimensions, see page 6. See also note on **Stay Rods,** page 1[illegible]

"STILES" PUNCHING PRESS, GEARED, No. 5½,

With Stay Rods.

Code Words,
ROARING POLARENTE.


NO.5½
E.W.BLISS CO.
BROOKLYN, N.Y.
U.S.A.

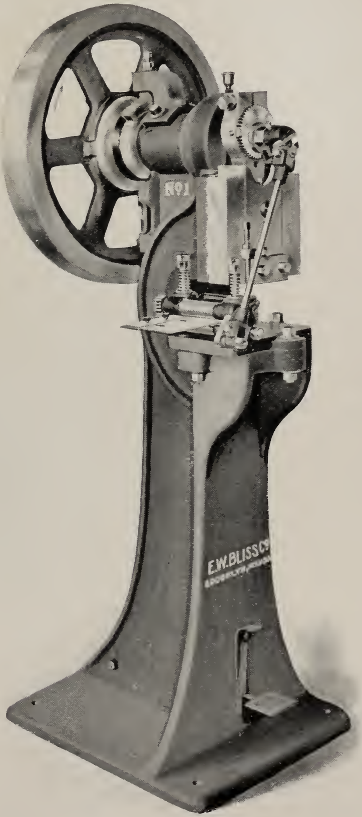
Stay Rods, Code Word, **Polarente,** for obviating the "Spring" of the frame on very heavy work, can be embodied in any of the "Stiles" Presses, if so ordered. For the extra charge for stay rods, see page 6. The No 5 Press, not geared, is frequently made with stay rods for embossing silver and britannia napkin rings, castor bands, butter globes, etc., and in that case is furnished with two sets of bolsters, one for flat and one for cylindrical work, with steel plates dovetailed in same, at the price of $-------- Code Word, **Rivulet.** See illustration, page 11.

For description, see pages 4 and 5. Dimensions on page 6.

THE "STILES" PUNCHING PRESS, No. 1,

With Single Roll Feed.

Code Words, **RIOT PRECURSORS.**



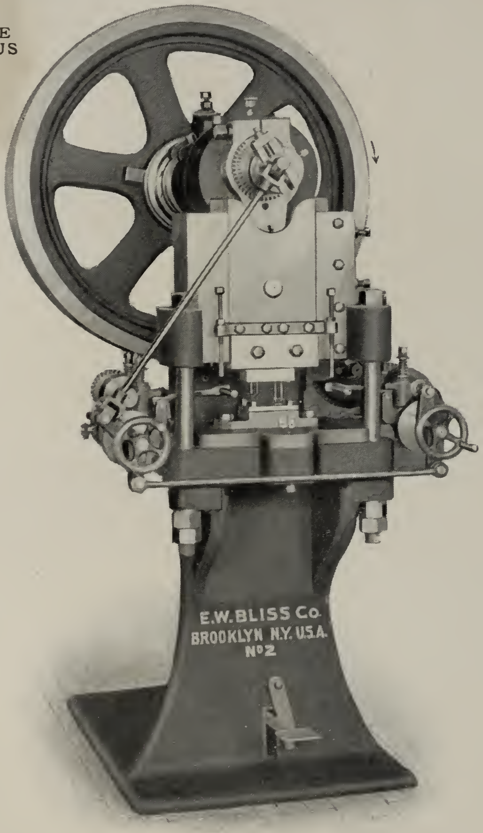
We make these presses in ten sizes for automatically feeding sheet metal or wire into cutting and forming dies. The feeds are made single or double with various size rolls, with automatic release action for the upper roll, also with hand wheels.

See roll feeds on pages 14, 15 and 16.

"STILES" PUNCHING PRESS No. 2.

With Stay Rods and Double Roll Feed.

Code Words,
RIOTING
POLARENTE
PREDACEOUS



This press is specially adapted for blanking and piercing bicycle chain links, washers, watch, clock and lock parts, and many other pieces used in the manufacture of hardware, lamps, electric apparatus, etc. The die first pierces the holes and then cuts the blanks, producing from 100 to 150 pieces per minute. On each stroke of the press, at the moment when the pilot pins attached to the blanking punch are about to enter the holes, previously pierced, the upper rolls are automatically raised so as to release the strip and permit the pilot pins to shift it into the proper position, correcting any "slip" which may have occurred in feeding. By means of the hand wheels shown, the strip may be quickly fed to the starting position and the last end quickly removed.

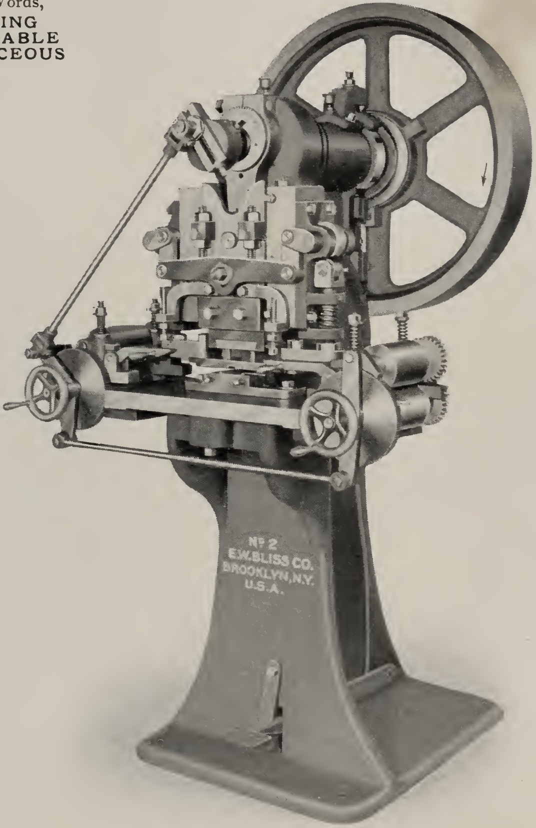
Some manufacturers use these presses with **single** instead of **double roll feed.**

When required for piercing and blanking only, the stay rods are generally omitted, but when chain links are to be flattened or embossed on this press, the stay rods add very much to the rigidity of the press and satisfactory results from the dies. See also pages 13, 15 and 16.

"STILES" PUNCHING PRESS, No. 2.

With Automatic Cam Stripper and Double Roll Feed.

Code Words,
RIOTING
PREGNABLE
PREDACEOUS



This half tone, and the one on page 16, illustrate methods of applying our **Automatic Cam Stripper Device** to the **"Stiles" Punching Presses** in connection with **Double Roll Feeds** for piercing and blanking bicycle chain links, washers, watch, clock and lock parts, and many other articles in the line of hardware, electric goods, etc.

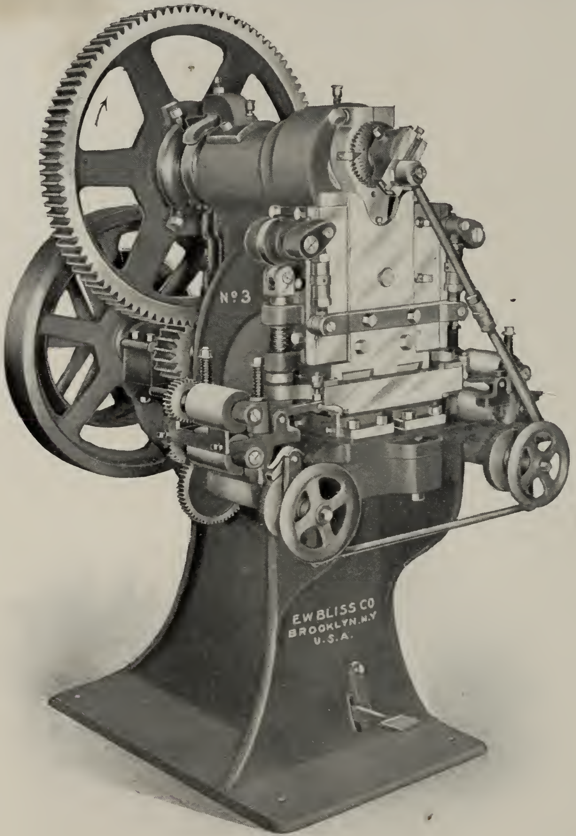
The Stripper Plate is attached to the stripper rods, which receive their vertical motion through cam rock shafts connected by adjustable links to a yoke attached to the slide, as shown on page 16. As the slide descends, the stripper first straightens (if the stock be not too thick), then securely clamps the stock, and holds it under pressure while the punching and stripping are being done, producing much more perfect results than is possible with a fixed stripper. This arrangement permits of making the punches shorter, more stocky and durable, and of punching a smaller hole in proportion to the thickness of stock, because of the close support which the movable stripper gives to the punches up to the point where they enter the stock.

For dimensions of press, see page 6. See also press on page 16.

"STILES" PUNCHING PRESS, No. 3, GEARED,

With Cam Stripper and Double Roll Back–Geared Feed.

Code Words, RIPPLED PREGNABLE PREDACEOUS PRECURS.



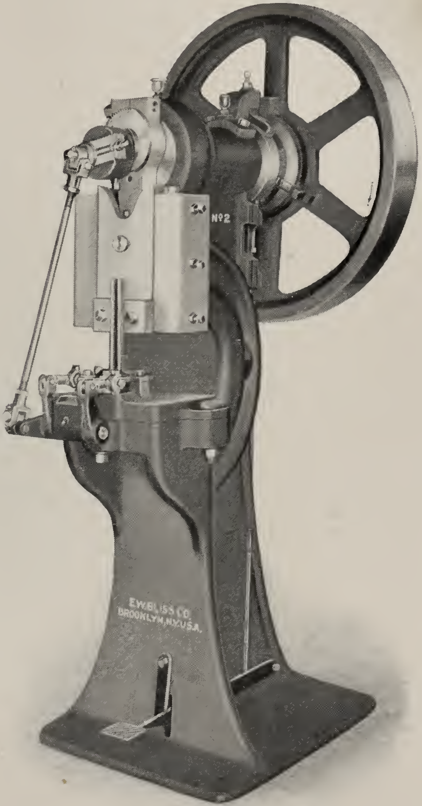
This press is intended for the same class of work as referred to on page 15, only heavier, and the double roll feed is back-geared to give a longer feed of stock at each stroke than the regular feed gives.

See dimensions of press on page 6.

See also press on page 15.

"STILES" PRESS, No. 2, WITH TUBE FEED.

Code Word, Stiles Press No. 2, with Tube Feed front to back, **RIONDACE.**
Code Word, Stiles Press No. 2, with Tube Feed left to right, **RIONDELLA.**



This machine is extensively used for stamping, lettering or other die work on small blanks, previously punched, such as bicycle chain links, buttons, clock and lock parts, metal novelties, etc. It may be built to feed front to back or left to right, as desired. The blanks are put into a tubular holder from which an automatically actuated slide takes them one by one, conveying them into the die at the rate of 100-150 pieces per minute. In some cases it becomes necessary to add a cam-actuated stop-gauge to insure feeding the blank to the exact position.

The tube feed may be easily removed and a single or double roll feed substituted, such as are shown on pages 13, 14 and 15.

THE "STILES" WATCH AND CLOCK MAKERS' POWER PRESSES.

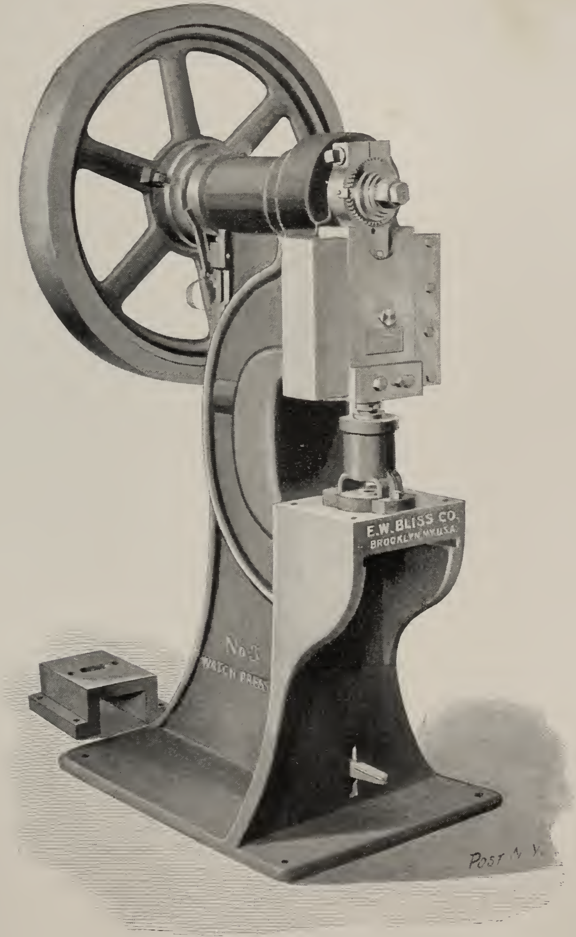
These presses, which we make in a number of different styles and sizes, are especially adapted for the manufacture of watch and clock work, jewelry, and other articles of a similar character. They are essentially the same as our regular "**Stiles**" presses (page 7), but are made with a small opening in bed and considerably more distance between bed and slide so as to accommodate "sub-presses" such as the illustration shows. A bridge bolster is used to shorten this distance if ordinary cutting or forming tools are also to be operated in the press. Such a bridge bolster is shown on the floor in the illustration. These watch presses are frequently furnished with an **adjustable stroke,** permitting to vary the movement of the slide in accordance with the construction of sub-presses of different sizes, and also with the **positive stop attachment,** which makes it impossible for the operator accidentally to make two strokes in succession if he should forget to take his foot off the treadle.

Sub-presses are now almost entirely used for the delicate dies required in the manufacture of watches and clocks. These dies are generally so arranged as to cut the outside and perforations of the pieces simultaneously. Sub-presses enable the operator to keep these dies always correctly adjusted for the work.

Number of "Stiles" Watch Press	0	1	2	3	4	5
Code Words	Rinsings	Rioters	Riotous	Ripplework	Ritornello	Rivergods
Price, with graduated eccentric adjustment	$	$	$	$	$	$
Weight, about ... lbs.	600	1,000	1,750	3,200	5,000	7,750
Distance back from center of slide ... ins.	4	4½	6	7½	9	10½
Distance from bed to bottom of slide, when up ... ins.	7	7½	8	9½	9½	10
Distance between gibs ... ins	3½	4¼	6¼	7⅞	9	10⅝
Stroke of slide, standard ... ins	½	½	½	½	½	½
Adjustment of slide ... ins.	½	½	½	½	½	½
Diameter of flywheel ... ins	18	24	30	38	42	50
Width of flywheel ... ins.	2½	3¼	4¼	5¼	6¼	7¼
Weight of flywheel ... lbs	125	225	350	725	900	1,350
Speed of flywheel, per minute ... revs.	150	135	125	100	95	90
Floor space over all, F. & B. x R & L ... ins.	26 x 22	26 x 24	34 x 30	43 x 38	50 x 42	58 x 50
Extra Price for adjustable stroke (Code word, **Preachers**)	$	$	$	$	$	$
Range of adjustable stroke ... ins.	¼–¾	¼–1	¼–1	¼–1	¼–1	¼–1
Extra Price for positive stop (Code word, **Ragabash**)	$	$	$	$	$	$
Extra Price for three clutch pins in wheel (Code word, **Precognita**)						
Extra Price for sub-press						
Extra Price for bridge bolster						

"STILES" WATCH AND CLOCK MAKERS' POWER PRESS, No. 3.

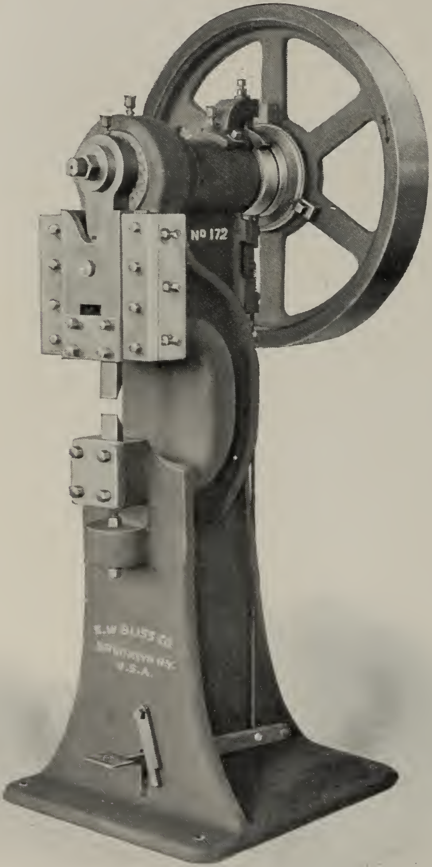
Code Word, RIPPLEWORK.


E.W. BLISS CO.
BROOKLYN N.Y.U.S.A.
No. 3
WATCH PRESS
POST N. Y.

See opposite page for description.

"STILES" POWER SPRUE CUTTER, No. 172.

Code Word, **ROSEFLY.**

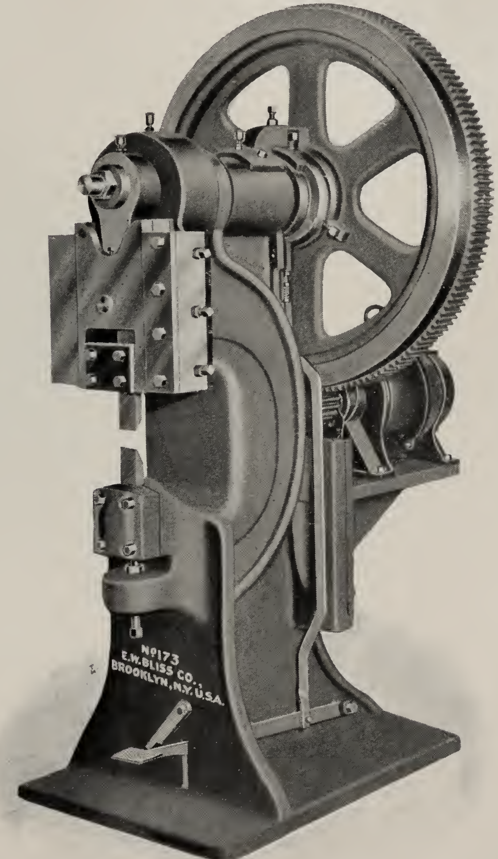


This cut shows the general style and appearance of the **Power Sprue Cutters,** Nos. 170, 171, 172 and 173. For description, see page 22.

"STILES" SPRUE CUTTER, No. 173,

With Electric Motor.

Code Words, **ROSEGALL POLARISIO.**



For description, see page 22.

"STILES" BRASS FOUNDERS' SPRUE CUTTERS,

Nos. 170, 171, 172 and 173.

These machines are especially designed to meet the requirements of brass founders and manufacturers of other soft metal castings. The operator has both hands free to guide the castings, as the cutters operate in reponse to a slight pressure on the foot-treadle, stopping automatically at the highest point of the stroke. The frame is so designed as to offer no obstruction, so that long castings, whether set square or at an angle to the main gate, can be cut off as readily and as perfectly as those of smaller dimensions.

The cutters are simply cut off from a bar of tool-steel of the requisite section, the cutting part being ground to a bevel edge, which can be done on a grindstone by any laborer. They can be used up almost to the last inch by setting up the screw adjustments. These adjustments permit of so setting the cutters that they will just cut off the gate without touching each other, thus preserving the keenness of the edges effectually.

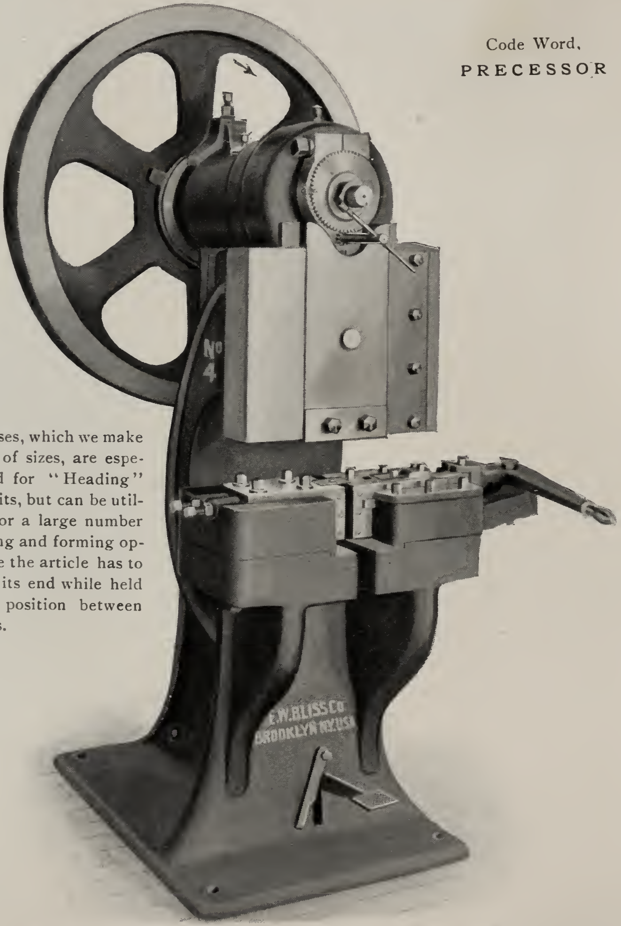
The cutters can be set as shown in illustrations on pages 20 and 21, or at right angles to that position, as may be desired.

These machines are sometimes located in foundries at such a distance from the driving power that it is found more convenient to run them by an independent electric motor attached directly to the machine itself, as shown on page 21.

Number of Machine	170	171	172	173
Code Words	Rosedrops	Rosefish	Rosefly	Rosegall
Code Word for Electric Motor, Polarisio.				
Price of belt driven machine	$	$	$	$
Price of machine with electric motor				
Will cut off gates—round (brass) ins.	⅜	⅝	⅞	1⅛
Will cut off gates—flat (brass) ins.	¼ x ¾	5/16 x ⅞	⅜ x 1½	½ x 1¾
Distance from cutter to frame ins	4	4¾	6	7½
Dis. between cutter-holders (slide down) ins.	4	4¾	5¾	7½
Weight, complete, about lbs.	525	900	1,500	3,000
Weight of fly-wheel lbs.	115	225	350	725
Size of fly-wheel ins	18 x 2½	24 x 3⅛	30 x 4¼	38 x 5¼
Speed of fly-wheel, per minute revs	150	130	115	100
Size of cutter, thickness and width ins.	½ x 1¼	⅝ x 1½	¾ x 1½	⅞ x 2

"STILES" BIT-HEADING PRESS, No. 4.

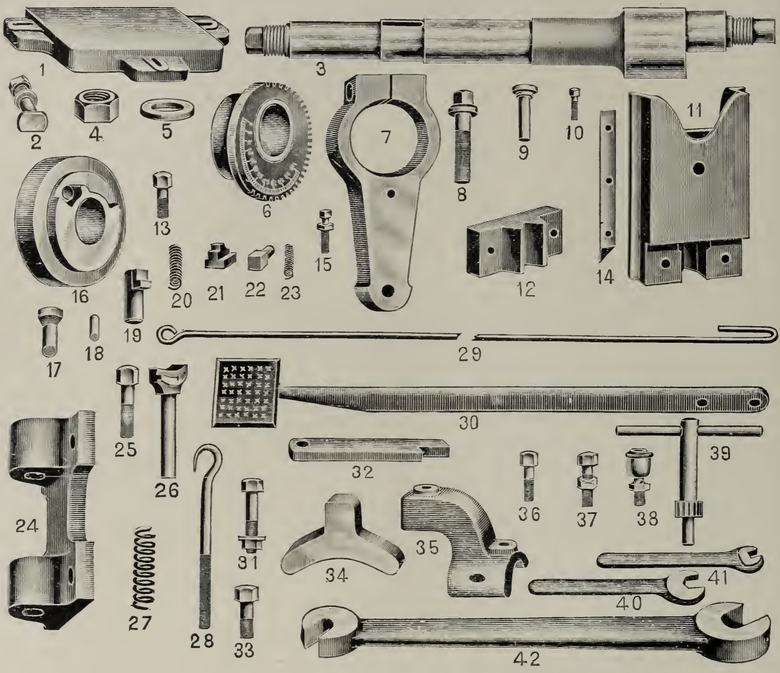
Code Word,
PRECESSOR



These presses, which we make in a number of sizes, are especially adapted for "Heading" Augers and Bits, but can be utilized as well for a large number of other forging and forming operations where the article has to be worked on its end while held in a vertical position between clamping jaws.

Number of Press	3	4	5
Code Words	Precepts	Precessor	Precinct
Price	$..........	$..........	$..........
For augers up to diameter ins	1	1½	2 [illegible]/4
Weight complete, about lbs.	3,400	5,500	8,400

PARTS OF "STILES" PUNCHING PRESSES.



1. Bolster plate.
2. Bolster bolt and nut.
3. Shafts.
4. Shaft nut.
5. Shaft washer.
6. Eccentric collar, bronze bushed.
7. Pitman.
8. Pitman clamp screw.
9. Pitman wrist pin.
10. Wrist pin set screw.
11. Slide.
12. Slide cap.
13. Slide cap screw.
14. Slide gib
15. Gib-adjusting screw and nut.
16. Clutch block.
17. Clutch block pin.
18. Clutch block pin screw.
19. Wheel pin.
20. Wheel pin spring.
21. Wheel dog.
22. Wheel dog stud.
23. Wheel dog spring.
24. Clutch fork bracket.
25. Clutch fork bracket screw.
26. Clutch fork.
27. Clutch fork spring.
28. Clutch fork extension.
29. Treadle connection.
30. Treadle.
31. Treadle stud and nut.
32. Treadle lock.
33. Treadle lock screw.
34. Brake.
35. Brake frame.
36. Brake frame screw.
37. Brake-adjusting screw and nut.
38. Oil cup.
39. Pinion wrench.
40. Wrench for cap screws.
41. Wrench for gib screws.
42. Wrench for shaft and clamp screw.
]

WHAT OUR MACHINERY IS USED FOR

We make Presses, Dies and Machines for the rapid and economical production of Tin and Sheet Iron Ware in all varieties, including Pieced, Stamped or Pressed.

Also for Petroleum Cans, Fruit and Vegetable Cans, Baking Powder Cans, Milk Cans, Spice Cans, Meat Cans, Paint and Varnish Cans, Fish Cans, Lard Pails, and all kinds of Tin Canisters, Boxes and Packages, including Druggists' Tinware.

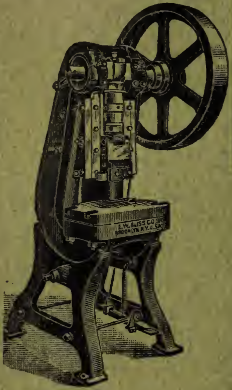
We make Punching, Shearing, Forming and Forging Machinery used by Bridge and Ship Builders, Structural Iron Works, Boiler Makers, Rolling Mills, Locomotive and Car Builders, Hammer and Edge Tool Works, etc.

Our products include Machines and Dies adapted to the use of manufacturers of

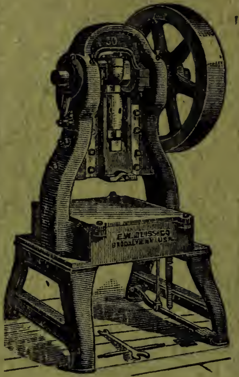
Agricultural Implements
Albums
Armature Disks and Segments
Bicycle Parts
Bird Cages
Bottle Caps and Capsules
Brass Goods
Britannia Ware
Buckles
Burners
Capsules for Bottles
Cigarette Boxes
Clocks
Coal Hods
Coins
Cornice Work
Cuspidors
Cutlery
Drip Pans
Drop Forgings
Electrical Goods
Elevator Buckets
Forks
Furniture
Gas Fixtures
Gas Ranges
Hammers
Hardware
Harness Trimmings
Hinges
Horse Shoes
Jewelry
Kitchen Boilers
Kitchen Utensils
Lamps
Lanterns
Locks
Match Boxes
Medals
Metallic Ceiling
Musical Instruments
Oil Stoves
Paper Placques and Plates
Paint Tubes
Pick-eyes
Plated Ware
Playing Cards
Porous Plasters
Pocket Books
Powder Kegs
Range Boilers
Roofing
Rubber Cups
Satchel Frames
Speaking Tubes
Stencils
Silver Ware
Sinks
Shovels
Spoons
Stoves
Stove Trimmings
Tobacco Boxes
Toys
Trunk Trimmings
Vapor Stoves
Watches
Wrought Iron Ranges
Wash Tubs
Zinc Work

And many other staple and special lines of goods.

E. W. BLISS CO., BROOKLYN, N. Y., U. S. A.



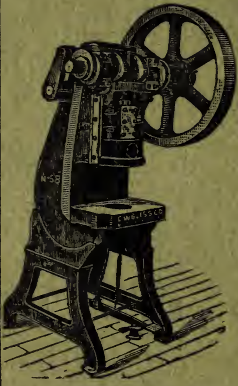
"BLISS" INCLINABLE POWER PRESS



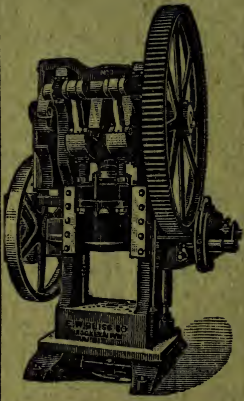
"BLISS" ARCH POWER PRESS, Nos. 30-34

E.W. BLISS CO.
BROOKLYN N.Y.
U.S.A.
No 16

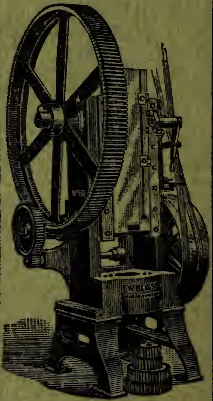
"BLISS" WIRING AND HORNING PRESSES



"BLISS" DOUBLE ACTION PRESS



"BLISS" TOGGLE DRAWING PRESS



"BLISS" REDUCING PRESS

GRAND PRIZE, PARIS, 1900.